

REMARKS

The applicant appreciates the Examiner's thorough examination of the Application and request reexamination and reconsideration of the Application in view of the following remarks.

The Examiner has indicated that claims 8, 18 and 25 would be allowable if rewritten in independent form. Applicant would like to thank the Examiner for the indication of allowable subject material.

Claims 1-7, 9-17, 19-24 and 26-30 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 6,265,778 B1 to Tottori.

Tottori relates to a semi-conductor device with a multi-level interconnection structure. Referring to Fig. 1, which the Examiner cites, semi-conductor device 1 includes fuse 31 and DRAM cell 5. When DRAM memory cell 5 becomes defective, a laser beam P is applied to fuse 31 to blow the fuse. When fuse 31 is blown, a redundancy circuit containing another DRAM memory cell becomes available.

Tottori, however, fails to teach, disclose or suggest the use of a semi-fusible link element or a selector circuit. Rather, instead of disclosing the use of a semi-fusible link element, as recited in Applicant's independent claims 1, 24 and 30, Tottori discloses a fusible link. As described in the Background of the Invention of the subject application, fusible links are often employed in integrated circuits to trim one or more of the parameters of the integrated circuit. A typical fusible link, such as that shown in Tottori, has an intact state and a blown state. In the intact state, the fusible link provides very low resistance, and in the blown state the fusible link provides an open circuit.

In contrast, the applicant's claimed invention employs a semi-fusible link, which has a first resistance in the intact state and a second higher resistance in the blown state, which is not an open circuit. An advantage of using a semi-fusible link is that it reduces the amount of current required to blow the fusible link and therefore reduces the amount of space utilized on an integrated circuit.

Also, contrary to the Examiner's assertion, Tottori fails to disclose a selector circuit as claimed by Applicant. The Examiner asserts on line 1, page 3 of the instant Office Action that element 5 of Tottori is a selector circuit. However, Tottori clearly discloses that element 5 in Fig. 1 is a DRAM memory cell. Rather than using a selector circuit as claimed by Applicants, Tottori discloses the use of a laser beam that must be applied to fuse 31 to blow a fuse. The use of a laser beam is clearly not convenient and also does not disclose the feature of a selector circuit disposed on a first layer of a multi-layer integrated circuit, as claimed by Applicant.

Applicant's Claim 1 recites: "[a] semi-fusible link system for a multi-layer integrated circuit including active circuitry on a first layer having a metal one layer comprising: a semi-fusible link element on a second layer having a metal two layer adapted for interconnecting with said metal one layer; and a selector circuit disposed on said first layer" (emphasis added). Applicant's independent claims 24 and 30 recite similar features. As described above, Tottori does not teach, disclose or suggest either a semi-fusible link element on a second layer, or a selector circuit disposed on a first layer of a multi-layer integrated circuit.

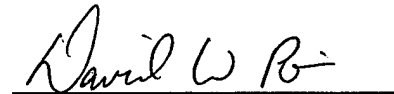
Accordingly, Applicant's independent claims 1, 24 and 30 are patentable over Tottori. Because claims 2-7, 9-17, 19-23 and 26-29 each depend from these claims,

claims 2-7, 9-17, 19-23 and 26-29 are also allowable over Tottori and are further patentable since they each include one or more additional features. Applicant respectfully requests that the Examiner withdraw the rejection under 35 U.S.C. §102(b).

Each of the Examiner's rejections have been addressed or traversed. Accordingly, it is respectfully submitted that the application is in condition for allowance. Early and favorable action is respectfully requested.

If for any reason this Response is found to be incomplete, or if at any time it appears that a telephone conference with counsel would help advance prosecution, please telephone the undersigned or his associates collect in Waltham, Massachusetts, at (781) 890-5678.

Respectfully submitted,

A handwritten signature in cursive script, reading "David W. Poirier", is written over a horizontal line.

David W. Poirier
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